Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A computer system for generating a dimensional enhanced data grouping, comprising:

an input interface of a computer system receiving one or more ~~transactional clinical~~ source records comprising data generated by a hospital, a laboratory or an insurer, wherein said data represent one or more factual and one or more dimensional attributes of source record data;

a set of rules to detect relationships between data components;

a data enhancement layer comprising a server on a hardware device, communicating with the input interface and the set of rules,

the data enhancement layer identifying relationships between data components and

generating a dimensional enhanced data grouping based on the ~~transactional clinical~~ source records and the set of rules[[,]];

the dimensional enhanced data grouping comprising at least one data component of the ~~transactional clinical~~ source records and at least one extended dimension reflecting at least one of a causal and correlated relationship to at least one data component for the source record data appended to the at least one of the ~~transactional clinical~~ source records, wherein said at least one extended dimension

comprises at least one attribute, variable, or quantity of a data component from the source record data; ~~and~~

a hardware storage component for storing the dimensional enhanced data group, implementing the dimensional enhanced data group into a transactional data store, and delivering the dimensional enhanced data group to one or more datamarts.

2. (Currently Amended) A system according to claim 1, wherein the ~~extended dimension comprises attributes, variables, or quantities~~ set of rules develops relationships between data components.

3. (Original) A system according to claim 1, wherein the set of rules comprises a set of user-defined rules.

4. (Currently Amended) A system according to claim 1, wherein the set of rules comprises a set of rules based on at least one ~~autocorrelation~~ pre-generation function executed on the ~~transactional clinical~~ source records.

5. (Previously Presented) A system according to claim 1, wherein the data enhancement layer comprises a server configured to generate and store the dimensional enhanced data grouping.

6. (Canceled)

7. (Currently Amended) A system according to claim 1, wherein the ~~transactional clinical~~ source records comprise data specific to at least one of a patient, a provider, a test result, and an order.

8. (Currently Amended) A system according to claim 1, wherein the at least one extended dimension comprises a recombination of ~~transactional clinical~~ source records based on selected record attributes.

9. (Currently Amended) A system according to claim 1, wherein the ~~at least one extended dimension comprises multiple extended dimensions~~ data enhancement layer resolves relationships between data components.

10. (Currently Amended) A system according to claim 1, wherein the ~~transactional clinical records~~ dimensional enhanced data grouping ~~comprise~~ comprises at least one of a hierarchical ~~records~~ grouping of one or more data components ~~and~~ or a multidimensional ~~records~~ grouping of one or more data components.

11. (Currently Amended) A system according to claim 10, wherein the data enhancement layer processes ~~both~~ at least one of a hierarchical ~~transactional clinical~~ source records ~~and~~ or a multidimensional ~~transactional clinical~~ source records.

12. (Canceled)

13. (Canceled)

14. (Original) A system according to claim 13, wherein the datamart is configured to receive queries.

15. (Original) A system according to claim 14, wherein the queries comprise standard query language queries.

16.　(Currently Amended) A method for generating a dimensional enhanced data grouping, comprising:

receiving at least one ~~transactional clinical records~~ source record at a computing system, the source record generated by at least one of a hospital, a laboratory, an university, a military or other government installation, and an insurer, comprising at least one data component specific to ~~a patient~~ at least one of a patient, a provider, a test result, and an order;

accessing a set of rules to detect relationships between data components; and

utilizing a data enhancement layer comprising a server on a hardware device to ~~generating~~ generate ~~an~~ a dimensional enhanced data grouping based on the ~~transactional clinical~~ source records and the set of rules;

the enhanced data grouping comprising at least one data component of the ~~transactional clinical~~ source records and at least one extended dimension appended to the at least one of the ~~transactional clinical~~ source records, wherein said at least one extended dimension comprises at least one attribute, variable, or quantity of a data component from the source record data.

17.　(Canceled)

18.　(Original) A method according to claim 16, wherein the set of rules comprises a set of user-defined rules.

19.   (Previously Presented) A method according to claim 16, wherein the set of rules comprises a set of rules based on at least one ~~autocorrelation~~ pre-generation function executed on the ~~transactional clinical~~ source records.

20.   (Canceled)

21.   (Canceled)

22.   (Currently Amended) A method according to claim 16, wherein the appending at least one extended dimension comprises generating a recombination of the transactional clinical records based on selected record attributes.

23.   (Canceled)

24.   (Currently Amended) A method according to claim 16, wherein the ~~transactional clinical~~ source records comprise at least one of hierarchical records and multidimensional records.

25.   (Currently Amended) A method according to claim 16, wherein the generating an enhanced data grouping comprises processing ~~both~~ at least one of a hierarchical ~~transactional clinical~~ source records ~~and~~ or a multidimensional transactional clinical record.

26.   (Previously Presented) A method according to claim 16, further comprising storing the dimensional enhanced data grouping to a transactional data store.

27.   (Canceled)

28.   (Original) A method according to claim 27, wherein the datamart is configured to receive queries.

29.   (Original) A method according to claim 28, wherein the queries comprise standard query language queries.

30.   (Currently Amended) A computer system for generating a dimensional enhanced data grouping, comprising:

input means on a computer system for receiving ~~transactional clinical~~ source records generated by at least one of a medical facility, a hospital, a laboratory, an university, a military or other government installation, and an insurer;

rules means for storing a set of rules; and

data enhancement means comprising a server on a hardware device, communicating with the input means and rules means, the data enhancement means generating a dimensional enhanced data grouping based on at least one of the ~~transactional clinical~~ source records and the set of rules, the enhanced data grouping comprising at least one data component of the ~~transactional clinical~~ source records and at least one extended dimension appended to the at least one of the ~~transactional clinical~~ source records, wherein said at least one extended dimension comprises at least one attribute, variable, or quantity of a data component from source record data; and

a hardware storing means for storing the dimensional enhanced data grouping.

31.   (Currently Amended) A system according to claim 30, wherein the ~~transactional clinical~~ source records comprise data generated by at least one of a hospital, a laboratory, an university, a military or other government installation, and an insurer.

32.   (Currently Amended) A system according to claim 30, wherein the ~~transactional clinical~~ source records comprise data specific to at least one of a patient, a provider, an event, a test result, an order, an encounter, and an administrative or medical process.

33.   (Currently Amended) A system according to claim 30, wherein the at least one extended dimension comprises a recombination of the ~~transactional clinical~~ source records based on selected record attributes.

34.   (Previously Presented) A system according to claim 30, wherein the at least one extended dimension comprises multiple extended dimensions.

35.   (Currently Amended) A system according to claim 30, wherein the ~~transactional clinical~~ source records comprises at least one of a hierarchical records ~~and~~ or a multidimensional records.

36.   (Previously Presented) A system according to claim 30, wherein the dimensional enhanced data grouping is communicated to a datamart.

37.   (Original) A system according to claim 36, wherein the datamart is configured to receive queries.

38.   (Currently Amended) A dimensional enhanced data grouping, comprising:

~~transactional clinical~~ source records received at a computing system, wherein the ~~transactional clinical~~ source records comprise at least one data component generated by at least one of a hospital, a laboratory, a university, a military or other government installation, and an insurer; and

at least one extended dimension appended to the at least one of the ~~transactional clinical~~ source records, wherein said at least one extended dimension comprises at least one attribute, variable, or quantity of a data component from the source record data, the at least one extended dimension being generated based ~~on at least one attribute of the at least one of the transactional clinical records and~~ a set of rules; and

a hardware storing component for storing the extended dimension appended to the at least one of the ~~transactional clinical~~ source records.

39.   (Previously Presented) A dimensional enhanced data grouping according to claim 38, wherein the at least one extended dimension comprises multiple extended dimensions.

40.   (Currently Amended) An enhanced data grouping according to claim 38, wherein the ~~transactional clinical~~ source records comprise at least one of hierarchical source records and multidimensional source records.

41.   (Previously Presented) A dimensional enhanced data grouping according to claim 38, wherein the dimensional enhanced data grouping is communicated to a datamart.

42.   (Previously Presented) A dimensional enhanced data grouping according to claim 41, wherein the datamart is configured to receive queries.

43.   (Currently Amended) A queryable datamart, comprising:

a dimensional enhanced data grouping, the dimensional enhanced data grouping comprising

~~transactional clinical~~ source records received at a computing system, the source records generated by at least one of a hospital, laboratory and insurer;

at least one extended dimension appended to the at least one of the ~~transactional clinical~~ source records, wherein said at least one extended dimension comprises at least one attribute, variable, or quantity of a data component from the source record data, the at least one extended dimension being generated based ~~on at least one attribute of the transactional clinical records and~~ a set of rules;

an input interface on a computer system to a query engine to interrogate the dimensional enhanced data grouping; and

a hardware storage component for storing the enhanced data grouping.

44.   (Original) A datamart according to claim 43, wherein the query engine comprises a standard query language engine.

45.   (Original) A datamart according to claim 43, further comprising a user interface communicating via a network with the query engine.